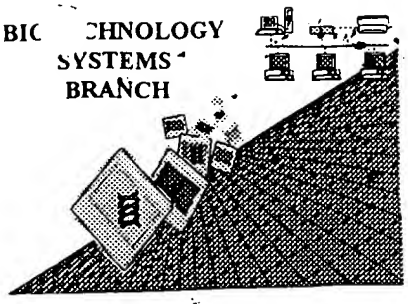

RAW SEQUENCE LISTING ERROR REPORT

The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) detected errors when processing the following computer readable form:

RECEIVED
SEP 17 2001
TECH CENTER 1600/2900

Application Serial Number: 09/581,651

Source: AU 1642

Date Processed by STIC: 08/02/2001

THE ATTACHED PRINTOUT EXPLAINS DETECTED ERRORS.
PLEASE FORWARD THIS INFORMATION TO THE APPLICANT BY EITHER:

1) **INCLUDING A COPY OF THIS PRINTOUT IN YOUR NEXT COMMUNICATION TO THE APPLICANT, WITH A NOTICE TO COMPLY or,**
2) **TELEPHONING APPLICANT AND FAXING A COPY OF THIS PRINTOUT, WITH A NOTICE TO COMPLY**

FOR CRF SUBMISSION QUESTIONS, PLEASE CONTACT MARK SPENCER, 703-308-4212.

FOR SEQUENCE RULES INTERPRETATION, PLEASE CONTACT ROBERT WAX, 703-308-4216.
PATENTIN 2.1 e-mail help: patin21help@uspto.gov or phone 703-306-4119 (R. Wax)
PATENTIN 3.0 e-mail help: patin3help@uspto.gov or phone 703-306-4119 (R. Wax)

TO REDUCE ERRORED SEQUENCE LISTINGS, **PLEASE** USE THE **CHECKER VERSION 3.0 PROGRAM**, ACCESSIBLE THROUGH THE U.S. PATENT AND TRADEMARK OFFICE WEBSITE. SEE BELOW:

Checker Version 3.0

The Checker Version 3.0 application is a state-of the-art Windows based software program employing a logical and intuitive user-interface to check whether a sequence listing is in compliance with format and content rules. Checker Version 3.0 works for sequence listings generated for the original version of 37 CFR §§1.821 – 1.825 effective October 1, 1990 (old rules) and the revised version (new rules) effective July 1, 1998 as well as World Intellectual Property Organization (WIPO) Standard ST.25.
Checker Version 3.0 replaces the previous DOS-based version of Checker, and is Y2K-compliant. Checker allows public users to check sequence listings in Computer Readable form (CRF) before submitting them to the United States Patent and Trademark Office (USPTO). Use of Checker prior to filing the sequence listing is expected to result in fewer errored sequence listings, thus saving time and money.

Checker Version 3.0 can be down loaded from the USPTO website at the following address:
http://www.uspto.gov/web/offices/pac/checker

Raw Sequence Listing Error Summary

ERROR DETECTED **SUGGESTED CORRECTION** **SERIAL NUMBER:** 09/581,651

ATTN: NEW RULES CASES: PLEASE DISREGARD ENGLISH "ALPHA" HEADERS, WHICH WERE INSERTED BY PTO SOFTWARE

1	Wrapped Nucleics Wrapped Aminos	The number/text at the end of each line "wrapped" down to the next line. This may occur if your file was retrieved in a word processor **after** creating it. Please adjust your right margin to .3; this will prevent "wrapping."
2	Invalid Line Length	The rules require that a line **not exceed** 72 characters in length. This includes white spaces.
3	Misaligned Amino Numbering	The numbering under each 5th amino acid is misaligned. Do **not** use tab codes between numbers; use **space characters**, instead.
4	Non-ASCII	The submitted file was **not** saved in ASCII(DOS) text, as **required** by the Sequence Rules. **Please ensure your subsequent submission is saved in ASCII text.**
5	Variable Length	Sequence(s)____contain n's or Xaa's representing more than one residue. **Per Sequence Rules, each n or Xaa can only represent a single residue.** Please present the **maximum** number of each residue having variable length and indicate in the <220>-<223> section that some may be missing.
6	PatentIn 2.0 "bug"	A "bug" in PatentIn version 2.0 has caused the <220>-<223> section to be missing from amino acid sequences(s) _____. Normally, PatentIn would automatically generate this section from the previously coded nucleic acid sequence. Please manually copy the relevant <220>-<223> section to the subsequent amino acid sequence. **This applies to the mandatory <220>-<223> sections for Artificial or Unknown sequences.**
7	Skipped Sequences (OLD RULES)	Sequence(s) _____ missing. If intentional, please insert the following lines for **each** skipped sequence: (2) INFORMATION FOR SEQ ID NO:X: (insert SEQ ID NO where "X" is shown) (i) SEQUENCE CHARACTERISTICS: (Do not insert any subheadings under this heading) (xi) SEQUENCE DESCRIPTION:SEQ ID NO:X: (insert SEQ ID NO where "X" is shown) This sequence is intentionally skipped Please also adjust the "(ii) NUMBER OF SEQUENCES:" response to **include** the skipped sequences.
8	Skipped Sequences (NEW RULES)	Sequence(s) _____ missing. If **intentional**, please insert the following lines for **each** skipped sequence. <210> sequence id number <400> sequence id number 000
9	Use of n's or Xaa's (NEW RULES)	Use of n's and/or Xaa's have been detected in the Sequence Listing. Per 1.823 of Sequence Rules, use of <220>-<223> is MANDATORY if n's or Xaa's are present. In <220> to <223> section, please explain location of **n** or **Xaa**, and which residue **n** or **Xaa** represents.
10	Invalid <213> Response	Per 1.823 of Sequence Rules, the only **valid** <213> responses are: Unknown, Artificial Sequence, or scientific name (Genus/species). <220>-<223> section is **required** when <213> response is Unknown or is Artificial Sequence
11	Use of <220>	Sequence(s) _____ missing the <220> "Feature" and associated numeric identifiers and responses. Use of <220> to <223> is MANDATORY if <213> "Organism" response is "Artificial Sequence" or "Unknown." Please explain source of genetic material in <220> to <223> section. (See "Federal Register," 06/01/1998, Vol. 63, No. 104, pp. 29631-32) (Sec. 1.823 of Sequence Rules)
12	PatentIn 2.0 "bug"	Please do not use "Copy to Disk" function of PatentIn version 2.0. This causes a corrupted file, resulting in missing mandatory numeric identifiers and responses (as indicated on raw sequence listing). Instead, please use "File Manager" or any other manual means to copy file to floppy disk.

AMC – Biotechnology Systems Branch – 06/04/2001

The types of errors shown exist throughout the Sequence Listing. Please check subsequent sequences for similar errors.

1642

RAW SEQUENCE LISTING DATE: 08/02/2001
PATENT APPLICATION: US/09/581,651 TIME: 17:26:52

Input Set : A:\seqlist.txt
Output Set: N:\CRF3\08022001\I581651.raw

Does Not Comply
Corrected Diskette Needed

See page 60 of 7A

```
 4 <110> APPLICANT: Schor, Seth Laurence
 5       Schor, Ana Maria
 7 <120> TITLE OF INVENTION: POLYPEPTIDES, POLYNUCLEOTIDES AND USES
 8       THEREOF
10 <130> FILE REFERENCE: 350013-72
12 <140> CURRENT APPLICATION NUMBER: 09/581,651
13 <141> CURRENT FILING DATE: 2000-10-10
15 <160> NUMBER OF SEQ ID NOS: 15
17 <170> SOFTWARE: FastSEQ for Windows Version 3.0
19 <210> SEQ ID NO: 1
20 <211> LENGTH: 660
21 <212> TYPE: PRT
22 <213> ORGANISM: Human
24 <400> SEQUENCE: 1
25  Asn Leu Val Ala Thr Cys Leu Pro Val Arg Ala Ser Leu Pro His Arg
26   1               5                  10                  15
27  Leu Asn Met Leu Arg Gly Pro Gly Pro Gly Leu Leu Leu Leu Ala Val
28              20                  25                  30
29  Gln Cys Leu Gly Thr Ala Val Pro Ser Thr Gly Ala Ser Lys Ser Lys
30          35                  40                  45
31  Arg Gln Ala Gln Gln Met Val Gln Pro Gln Ser Pro Val Ala Val Ser
32      50                  55                  60
33  Gln Ser Lys Pro Gly Cys Tyr Asp Asn Gly Lys His Tyr Gln Ile Asn
34  65                  70                  75                  80
35  Gln Gln Trp Glu Arg Thr Tyr Leu Gly Asn Ala Leu Val Cys Thr Cys
36                  85                  90                  95
37  Tyr Gly Gly Ser Arg Gly Phe Asn Cys Glu Ser Lys Pro Glu Ala Glu
38              100                 105                 110
39  Glu Thr Cys Phe Asp Lys Tyr Thr Gly Asn Thr Tyr Arg Val Gly Asp
40          115                 120                 125
41  Thr Tyr Glu Arg Pro Lys Asp Ser Met Ile Trp Asp Cys Thr Cys Ile
42      130                 135                 140
43  Gly Ala Gly Arg Gly Arg Ile Ser Cys Thr Ile Ala Asn Arg Cys His
44  145                 150                 155                 160
45  Glu Gly Gly Gln Ser Tyr Lys Ile Gly Asp Thr Trp Arg Arg Pro His
46                  165                 170                 175
47  Glu Thr Gly Gly Tyr Met Leu Glu Cys Val Cys Leu Gly Asn Gly Lys
48              180                 185                 190
49  Gly Glu Trp Thr Cys Lys Pro Ile Ala Glu Lys Cys Phe Asp His Ala
50          195                 200                 205
51  Ala Gly Thr Ser Tyr Val Val Gly Glu Thr Trp Glu Lys Pro Tyr Gln
52      210                 215                 220
53  Gly Trp Met Met Val Asp Cys Thr Cys Leu Gly Glu Gly Ser Gly Arg
54  225                 230                 235                 240
55  Ile Thr Cys Thr Ser Arg Asn Arg Cys Asn Asp Gln Asp Thr Arg Thr
56                  245                 250                 255
57  Ser Tyr Arg Ile Gly Asp Thr Trp Ser Lys Lys Asp Asn Arg Gly Asn
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RAW SEQUENCE LISTING DATE: 08/02/2001
PATENT APPLICATION: **US/09/581,651** TIME: 17:26:52

Input Set : **A:\seqlist.txt**
Output Set: **N:\CRF3\08022001\I581651.raw**

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58                260                 265                 270
59  Leu Leu Gln Cys Ile Cys Thr Gly Asn Gly Arg Gly Glu Trp Lys Cys
60          275                 280                 285
61  Glu Arg His Thr Ser Val Gln Thr Thr Ser Ser Gly Ser Gly Pro Phe
62      290                 295                 300
63  Thr Asp Val Arg Ala Ala Val Tyr Gln Pro Gln Pro His Pro Gln Pro
64  305                 310                 315                 320
65  Pro Pro Tyr Gly His Cys Val Thr Asp Ser Gly Val Val Tyr Ser Val
66                  325                 330                 335
67  Gly Met Gln Trp Leu Lys Thr Gln Gly Asn Lys Gln Met Leu Cys Thr
68                  340                 345                 350
69  Cys Leu Gly Asn Gly Val Ser Cys Gln Glu Thr Ala Val Thr Gln Thr
70          355                 360                 365
71  Tyr Gly Gly Asn Ser Asn Gly Glu Pro Cys Val Leu Pro Phe Thr Tyr
72      370                 375                 380
73  Asn Asp Arg Thr Asp Ser Thr Thr Ser Asn Tyr Glu Gln Asp Gln Lys
74  385                 390                 395                 400
75  Tyr Ser Phe Cys Thr Asp His Thr Val Leu Val Gln Thr Arg Gly Gly
76                  405                 410                 415
77  Asn Ser Asn Gly Ala Leu Cys His Phe Pro Phe Leu Tyr Asn Asn His
78                  420                 425                 430
79  Asn Tyr Thr Asp Cys Thr Ser Glu Gly Arg Arg Asp Asn Met Lys Trp
80          435                 440                 445
81  Cys Gly Thr Thr Gln Asn Tyr Asp Ala Asp Gln Lys Phe Gly Phe Cys
82      450                 455                 460
83  Pro Met Ala Ala His Glu Glu Ile Cys Thr Thr Asn Glu Gly Val Met
84  465                 470                 475                 480
85  Tyr Arg Ile Gly Asp Gln Trp Asp Lys Gln His Asp Met Gly His Met
86                  485                 490                 495
87  Met Arg Cys Thr Cys Val Gly Asn Gly Arg Gly Glu Trp Thr Cys Ile
88                  500                 505                 510
89  Ala Tyr Ser Gln Leu Arg Asp Gln Cys Ile Val Asp Asp Ile Thr Tyr
90          515                 520                 525
91  Asn Val Asn Asp Thr Phe His Lys Arg His Glu Glu Gly His Met Leu
92      530                 535                 540
93  Asn Cys Thr Cys Phe Gly Gln Gly Arg Gly Arg Trp Lys Cys Asp Pro
94  545                 550                 555                 560
95  Val Asp Gln Cys Gln Asp Ser Glu Thr Gly Thr Phe Tyr Gln Ile Gly
96                  565                 570                 575
97  Asp Ser Trp Glu Lys Tyr Val His Gly Val Arg Tyr Gln Cys Tyr Cys
98                  580                 585                 590
99  Tyr Gly Arg Gly Ile Gly Glu Trp His Cys Gln Pro Leu Gln Thr Tyr
100         595                 600                 605
101  Pro Ser Ser Ser Gly Pro Val Glu Val Phe Ile Thr Glu Thr Pro Ser
102     610                 615                 620
103  Gln Pro Asn Ser His Pro Ile Gln Trp Asn Ala Pro Gln Pro Ser His
104 625                 630                 635                 640
105  Ile Ser Lys Tyr Ile Leu Arg Trp Arg Pro Val Ser Ile Pro Pro Arg
106                 645                 650                 655
```

RAW SEQUENCE LISTING DATE: 08/02/2001
PATENT APPLICATION: US/09/581,651 TIME: 17:26:52

Input Set : A:\seqlist.txt
Output Set: N:\CRF3\08022001\I581651.raw

Asn Leu Gly Tyr
660

<210> SEQ ID NO: 2
<211> LENGTH: 2147
<212> TYPE: DNA
<213> ORGANISM: Human
<400> SEQUENCE: 2

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cctccacggg agcctcgaag agcaagaggc aggctcagca aatggttcag ccccagtccc 180
cggtggctgt cagtcaaagc aagcccggtt gttatgacaa tggaaaacac tatcagataa 240
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gccgaggttt taactgcgag agtaaacctg aagctgaaga gacttgcttt gacaagtaca 360
ctgggaacac ttaccgagtg ggtgacactt atgagcgtcc taaagactcc atgatctggg 420
actgtacctg catcggggct gggcgaggga gaataagctg taccatcgca aaccgctgcc 480
atgaaggggg tcagtcctac aagattggtg acacctggag gagaccacat gagactggtg 540
gttacatgtt agagtgtgtg tgtcttggta atggaaaagg agaatggacc tgcaagccca 600
tagctgagaa gtgttttgat catgctgctg ggacttccta tgtggtcgga gaaacgtggg 660
agaagcccta ccaaggctgg atgatggtag attgtacttg cctgggagaa ggcagcggac 720
gcatcacttg cacttctaga aatagatgca acgatcagga cacaaggaca tcctatagaa 780
ttggagacac ctggagcaag aaggataatc gaggaaacct gctccagtgc atctgcacag 840
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gatctggccc cttcaccgat gttcgtgcag ctgtttacca accgcagcct caccccccagc 960
ctcctcccta tggccactgt gtcacagaca gtggtgtggt ctactctgtg gggatgcagt 1020
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agggcagaag agacaacatg aagtggtgtg ggaccacaca gaactatgat gccgaccaga 1380
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cgtgtgttgg gaatggtcgt ggggaatgga catgcattgc ctactcgcag cttcgagatc 1560
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agaagtatgt gcatggtgtc agataccagt gctactgcta tggccgtggc attggggagt 1800
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actgagtctc ctaatcttat caattctgat ggtttctttt tttcccagct tttgagccaa 2040
caactctgat taactattcc tatagcattt actatatttg tttagtgaac aaacaatatg 2100
tggtcaatta aattgacttg tagactgaaa aaaaaaaaaa aaaaaaa 2147

<210> SEQ ID NO: 3
<211> LENGTH: 20
<212> TYPE: PRT
<213> ORGANISM: Human
<400> SEQUENCE: 3

Ile Ser Lys Tyr Ile Leu Arg Trp Arg Pro Val Ser Ile Pro Pro Arg

RAW SEQUENCE LISTING DATE: 08/02/2001
PATENT APPLICATION: US/09/581,651 TIME: 17:26:52

Input Set : A:\seqlist.txt
Output Set: N:\CRF3\08022001\I581651.raw

```
160   1               5                   10                  15
161  Asn Leu Gly Tyr
162              20
164 <210> SEQ ID NO: 4
165 <211> LENGTH: 21
166 <212> TYPE: PRT
167 <213> ORGANISM: Human
169 <400> SEQUENCE: 4
170  Gln Gln Trp Glu Arg Thr Tyr Leu Gly Asn Ala Leu Val Cys Thr Cys
171   1               5                   10                  15
172  Tyr Gly Gly Ser Arg
173              20
175 <210> SEQ ID NO: 5
176 <211> LENGTH: 23
177 <212> TYPE: PRT
178 <213> ORGANISM: Human
180 <400> SEQUENCE: 5
181  Pro Cys Val Leu Pro Phe Thr Tyr Asn Asp Arg Thr Asp Ser Thr Thr
182   1               5                   10                  15
183  Ser Asn Tyr Glu Gln Asp Gln
184              20
186 <210> SEQ ID NO: 6
187 <211> LENGTH: 20
188 <212> TYPE: PRT
189 <213> ORGANISM: Human
191 <400> SEQUENCE: 6
192  Thr Asp His Thr Val Leu Val Gln Thr Arg Gly Gly Asn Ser Asn Gly
193   1               5                   10                  15
194  Ala Leu Cys His
195              20
197 <210> SEQ ID NO: 7
198 <211> LENGTH: 21
199 <212> TYPE: PRT
200 <213> ORGANISM: Human
202 <400> SEQUENCE: 7
203  Val Gly Asn Gly Arg Gly Glu Trp Thr Cys Ile Ala Tyr Ser Gln Leu
204   1               5                   10                  15
205  Arg Asp Gln Cys Ile
206              20
208 <210> SEQ ID NO: 8
209 <211> LENGTH: 21
210 <212> TYPE: PRT
211 <213> ORGANISM: Human
213 <400> SEQUENCE: 8
214  Gln Gln Trp Glu Arg Thr Tyr Leu Gly Asn Val Leu Val Cys Thr Cys
215   1               5                   10                  15
216  Tyr Gly Gly Ser Arg
217              20
219 <210> SEQ ID NO: 9
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RAW SEQUENCE LISTING DATE: 08/02/2001
PATENT APPLICATION: US/09/581,651 TIME: 17:26:52

Input Set : A:\seqlist.txt
Output Set: N:\CRF3\08022001\I581651.raw

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220 <211> LENGTH: 39
221 <212> TYPE: PRT
222 <213> ORGANISM: Human
224 <400> SEQUENCE: 9
225  Glu Pro Cys Val Leu Pro Phe Thr Tyr Asn Gly Arg Thr Phe Tyr Ser
226   1               5                  10                  15
227  Cys Thr Thr Glu Gly Arg Gln Asp Gly His Leu Trp Cys Ser Thr Thr
228              20                  25                  30
229  Ser Asn Tyr Glu Gln Asp Gln
230          35
232 <210> SEQ ID NO: 10
233 <211> LENGTH: 21
234 <212> TYPE: PRT
235 <213> ORGANISM: Human
237 <400> SEQUENCE: 10
238  Cys Thr Asp His Thr Val Leu Val Gln Thr Gln Gly Gly Asn Ser Asn
239   1               5                  10                  15
240  Gly Ala Leu Cys His
241              20
243 <210> SEQ ID NO: 11
244 <211> LENGTH: 21
245 <212> TYPE: PRT
246 <213> ORGANISM: Human
248 <400> SEQUENCE: 11
249  Val Gly Asn Gly Arg Gly Glu Trp Thr Cys Tyr Ala Tyr Ser Gln Leu
250   1               5                  10                  15
251  Arg Asp Gln Cys Ile
252              20
254 <210> SEQ ID NO: 12
255 <211> LENGTH: 20
256 <212> TYPE: PRT
257 <213> ORGANISM: Human
259 <400> SEQUENCE: 12
260  Ile Ser Lys Tyr Ile Leu Arg Trp Arg Pro Lys Asn Ser Val Gly Arg
261   1               5                  10                  15
262  Trp Lys Glu Ala
263              20
265 <210> SEQ ID NO: 13
266 <211> LENGTH: 11
267 <212> TYPE: PRT
268 <213> ORGANISM: Human
270 <400> SEQUENCE: 13
271  Thr Ala Ser Gly Val Ala Glu Thr Thr Asn Cys
272   1               5                  10
274 <210> SEQ ID NO: 14
275 <211> LENGTH: 24
276 <212> TYPE: PRT
277 <213> ORGANISM: Artificial Sequence
279 <220> FEATURE:
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<210> 14
<211> 24
<212> PRT
<213> Artificial Sequence

Description of Artificial Sequence is mandatory in Field 223

<220>

<400> 14
Glu Pro Cys Val Leu Pro Phe Thr Tyr Asn Asp Arg Thr Asp Ser Thr
1 5 10 15
Thr Ser Asn Tyr Glu Gln Asp Gln
20

<210> 15
<211> 21
<212> PRT
<213> Artificial Sequence

<220>
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VERIFICATION SUMMARY DATE: 08/02/2001
PATENT APPLICATION: **US/09/581,651** TIME: 17:26:53

Input Set : **A:\seqlist.txt**
Output Set: **N:\CRF3\08022001\I581651.raw**

L:281 M:258 W: Mandatory Feature missing, <223> OTHER INFORMATION: